

Application No. 10/612,037
Response to Office Action

Customer No. 01933

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE SPECIFICATION

The specification has been amended to correct some minor informalities of which the undersigned has become aware. No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered.

THE CLAIMS

Claims 1-24 to make some minor grammatical improvements and to correct some minor antecedent basis problems so as to put them in better form for issuance in a U.S. patent. All of the informalities pointed out by the Examiner have been corrected.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

It is respectfully submitted, moreover, that the amendments to the claims are not related to patentability, and do not narrow the scope of the claims either literally or under the doctrine of equivalents.

Application No. 10/612,037
Response to Office Action

Customer No. 01933

THE PRIOR ART REJECTION

Claims 1, 5, 9, 13 and 17-24 were rejected under 35 USC 103 as being obvious in view of the combination of USP 5,923,021 ("Dvorkis et al") and US 2003/0142408 ("Lee et al"), and claims 2-4, 6-8, 10-12 and 14-16 were rejected under 35 USC 103 as being obvious in view of the combination of Dvorkis et al, Lee et al and USP 5,982,540 ("Koike et al"). These rejections, however, are respectfully traversed.

On page 4 of the Office Action, the Examiner refers to Dvorkis et al as disclosing the feature of the present invention whereby the transmissivity T_1 (λ_0 , θ) (or reflectivity) increases when the incident angle θ increases close to a predetermined maximum incident angle θ_{\max} with respect to the incident light with a wavelength λ_0 entering the multilayer film structure. (The incident angle is, of course, the angle with respect to the normal, or 0° .)

It is respectfully pointed out, however, that Dvorkis et al discloses the exact opposite. Indeed, as pointed out by the Examiner, Dvorkis et al discloses 75% transmission at 0° , 35% transmission at 15° and 0% transmission (cut-off) at 30° . Thus, it is respectfully submitted that Dvorkis et al clearly discloses decreasing transmissivity as the incident angle increases.

Application No. 10/612,037
Response to Office Action

Customer No. 01933

It is respectfully pointed out, moreover, that with the structure of Dvorkis et al light reflected from the bar code is not read by the reader if the incident angle of the reflected light is greater than 30° .

By contrast, according to the claimed present invention, as shown in Fig. 8 for example, the maximum transmissivity is achieved at an incident angle of around 40° . With this structure, even if the bar code reader is positioned close to the bar code, it is possible to effectively read the bar code.

In addition, it is respectfully pointed out that the incident angle described by Dvorkis et al is oriented differently with respect to the scanning direction of the bar code than the incident angle of the claimed present invention. That is, as shown in Fig. 3 of Dvorkis et al the 60° angle within which light is transmitted is arranged to cross the scan direction. With this orientation, Dvorkis et al attempts to shut out background signals that do not correspond to the bar code. Thus, it is respectfully submitted that Dvorkis et al merely discloses a filter to eliminate noise.

By contrast, according to the present invention, an optical gain correction filter is provide to correct for the decreasing amount of light reflected from the periphery of the scanned area of the bar code. Therefore, according to the present invention the incident angle extends along the scanning direction (see

Application No. 10/612,037
Response to Office Action

Customer No. 01933

Fig. 1), and the present invention ensures that a wide scanning area of the bar code is possible even if the reader is positioned close to the bar code.

Thus, it is respectfully submitted that Dvorkis et al clearly does not disclose, teach or suggest increasing transmissivity as the incident angle increases as according to the claimed present invention, and in fact teaches exactly the opposite.

It is respectfully submitted, moreover, that Lee et al has merely been cited for the disclosure of stacked films. And it is respectfully submitted that the optical gain correction filter of the claimed present invention is clearly not a gain-flattening filter as disclosed by Lee et al.

Still further, it is respectfully submitted that Koike et al has merely been cited for the disclosure SiO_2 with a refractive index of 1.46 and TiO_2 with a refractive index of 2.3.

In view of the foregoing, it is respectfully submitted that the claimed present invention clearly patentably distinguishes over Dvorkis et al, Lee et al and Koike et al, taken in any combination consistent with the respective fair teachings thereof, under 35 USC 103.

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Application No. 10/612,037
Response to Office Action

Customer No. 01933

Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

/Douglas Holtz/

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